



# **Analytical Abstracts**

**Index to Volume 32 1977**

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## JOURNALS

Abbreviations of the names of journals as used in the abstracts are given in the following list of main sources that are regularly scanned. Journals that yield only an occasional item of analytical interest are omitted from the list, as are Russian journals containing papers of which the translated titles have been published through the medium of *Referativnyi Zhurnal*.

The abbreviations, in italics, after the full names of the journals refer to the languages in which the journals are published.

<i>Acta chem. scand.</i>	...	...	...	...	Acta Chemica Scandinavica [Eng.]
<i>Acta chim. hung.</i>	...	...	...	...	Acta Chimica Academiae Scientiarum Hungaricae [Eng., Ger.]
<i>Acta pharm. hung.</i>	...	...	...	...	Acta Pharmaceutica Hungarica [Hung.]
<i>Acta pharm. jugosl.</i>	...	...	...	...	Acta Pharmaceutica Jugoslavica [Serbo-Croat]
<i>Acta pharm. suec.</i>	...	...	...	...	Acta Pharmaceutica Suecica [Eng.]
<i>Acta Pol. pharm.</i>	...	...	...	...	Acta Poloniae Pharmaceutica [Pol.]
<i>Agric. biol. Chem.</i>	...	...	...	...	Agricultural and Biological Chemistry [Tokyo] [Eng.]
<i>AMDEL Bull.</i>	...	...	...	...	Bulletin of the Australian Mineral Development Laboratories [Eng.]
<i>Am. ind. Hyg. Ass. J.</i>	...	...	...	...	American Industrial Hygiene Association Journal [Eng.]
<i>Analisis</i>	...	...	...	...	Analisis (formerly Chimie Analytique and Methodes Physiques d'Analyse) [Fr.]
<i>Analyst, Lond.</i>	...	...	...	...	Analyst [Eng.]
<i>Analyt. Biochem.</i>	...	...	...	...	Analytical Biochemistry [Eng.]
<i>Analyt. Chem.</i>	...	...	...	...	Analytical Chemistry [Eng.]
<i>Analytica chim. Acta</i>	...	...	...	...	Analytica Chimica Acta [Eng., Fr., Ger.]
<i>Analyt. Lett.</i>	...	...	...	...	Analytical Letters [Eng., Fr., Ger.]
<i>An. Bromat.</i>	...	...	...	...	Anales de Bromatologia [Span.]
<i>Angew. Chem., int. Edn</i>	...	...	...	...	Angewandte Chemie, International Edition [Eng.]
<i>Angew. makromolek. Chem.</i>	...	...	...	...	Angewandte makromolekulare Chemie [Eng., Ger.]
<i>Annali Ist. sup. Sanita</i>	...	...	...	...	Annali dell'Istituto Superiore di Sanita [Eng., Fr., Ital.]
<i>Annals Falsif. Expert. chim.</i>	...	...	...	...	Annales des Falsifications et de l'Expertise Chimique [Fr.]
<i>Annals pharm. fr.</i>	...	...	...	...	Annales Pharmaceutiques Francaises [Fr.]
<i>An. Quim.</i>	...	...	...	...	Anales de Quimica de la Real Sociedad Espanola de Fisica y Quimica [Span.]
<i>Appl. Optics</i>	...	...	...	...	Applied Optics [Eng.]
<i>Appl. Spectrosc.</i>	...	...	...	...	Applied Spectroscopy [Eng.]
<i>Arch. EisenhuettenWes.</i>	...	...	...	...	Archiv fuer das Eisenhuettenwesen [Ger.]
<i>Arch. Pharm., Weinheim</i>	...	...	...	...	Archiv der Pharmazie (und Berichte der Deutschen pharmazeutischen Gesellschaft) [Ger.]
<i>Armyan. khim. Zh.</i>	...	...	...	...	Armyanskii Khimicheskii Zhurnal [Russ.]
<i>Arzneimittel-Forsch.</i>	...	...	...	...	Arzneimittel-Forschung [Ger.]
<i>Atmos. Environ.</i>	...	...	...	...	Atmospheric Environment [Eng.]
<i>Atom. Absorp. Newslet.</i>	...	...	...	...	Atomic Absorption Newsletter [Eng.]
<i>Aust. J. Chem.</i>	...	...	...	...	Australian Journal of Chemistry [Eng.]
<i>Azerb. khim. Zh.</i>	...	...	...	...	Azerbaijdzhanskii Khimicheskii Zhurnal [Russ.]
<i>Beitr. Tabakforsch.</i>	...	...	...	...	Beitraege zur Tabakforschung [Eng., Ger.]
<i>Biochem. J.</i>	...	...	...	...	Biochemical Journal [Eng.]
<i>Biochem. Med.</i>	...	...	...	...	Biochemical Medicine [Eng.]
<i>Biochim. biophys. Acta</i>	...	...	...	...	Biochimica et Biophysica Acta [Eng.]
<i>Biochimie</i>	...	...	...	...	Biochimie (formerly Bulletin de la Societe de Chimie Biologique) [Eng., Fr.]
<i>Biomed. Mass Spectrom.</i>	...	...	...	...	Biomedical Mass Spectrometry [Eng.]
<i>Bios, France</i>	...	...	...	...	Bios [Fr.]
<i>Boll. Soc. ital. Biol. sper.</i>	...	...	...	...	Bollettino della Societa Italiana di Biologia Sperimentale [Ital.]
<i>Brauwissenschaft</i>	...	...	...	...	Brauwissenschaft [Ger.]
<i>Br. med. J.</i>	...	...	...	...	British Medical Journal [Eng.]
<i>Br. Steel Corp. open Rep.</i>	...	...	...	...	British Steel Corporation Open Report [Eng.]
<i>Bull. chem. Soc. Japan</i>	...	...	...	...	Bulletin of the Chemical Society of Japan [Eng.]
<i>Bull. environ. Contam. Toxic.</i>	...	...	...	...	Bulletin of Environmental Contamination and Toxicology [Eng.]
<i>Bull. Narcot.</i>	...	...	...	...	Bulletin on Narcotics [Eng.]
<i>Bull. Soc. chim. Fr.</i>	...	...	...	...	Bulletin de la Societe Chimique de France [Fr.]
<i>Bunseki Kagaku [Japan Analyst]</i>	...	...	...	...	Bunseki Kagaku [Jap.]
<i>Can. J. Biochem.</i>	...	...	...	...	Canadian Journal of Biochemistry [Eng., Fr.]
<i>Can. J. Chem.</i>	...	...	...	...	Canadian Journal of Chemistry [Eng., Fr.]
<i>Can. J. Spectrosc.</i>	...	...	...	...	Canadian Journal of Spectroscopy [Eng., Fr.]
<i>Cereal Chem.</i>	...	...	...	...	Cereal Chemistry [Eng.]
<i>Chem. Geol.</i>	...	...	...	...	Chemical Geology [Eng., Fr.]
<i>Chemia analit.</i>	...	...	...	...	Chemia Analityczna [Eng., Fr., Ger., Pol., Russ.]
<i>Chem. Scr.</i>	...	...	...	...	Chemica Scripta [Eng.]
<i>Chemicke Listy</i>	...	...	...	...	Chemicke Listy [Czech]
<i>Chemicke Zvesti</i>	...	...	...	...	Chemicke Zvesti [Eng., Fr., Ger., Russ.]
<i>Chemicky Prum.</i>	...	...	...	...	Chemicky Prumysl [Czech]
<i>Chemiker Ztg</i>	...	...	...	...	Chemiker Zeitung [Ger.]

<i>Chemistry, Taipei</i>	..	..	..	Chemistry, Taipei [Chin.]
<i>Chem. pharm. Bull., Tokyo</i>	..	..	..	Chemical & Pharmaceutical Bulletin [Eng., Ger.]
<i>Chem. Tech., Lpz.</i>	..	..	..	Chemische Technik [Ger.]
<i>Chem. Br.</i>	..	..	..	Chemistry in Britain [Eng.]
<i>Chem. Ind.</i>	..	..	..	Chemistry and Industry [Eng.]
<i>Chimia</i>	..	..	..	Chimia [Eng., Fr., Ger.]
<i>Chromatographia</i>	..	..	..	Chromatographia [Eng., Fr., Ger.]
<i>Chromat. Rev.</i>	..	..	..	Chromatographic Reviews [Eng.]
<i>Clin. Chem.</i>	..	..	..	Clinical Chemistry [Eng.]
<i>Clinica chim. Acta</i>	..	..	..	Clinica Chimica Acta [Eng., Fr., Ger.]
<i>Colln Czech. chem. Commun.</i>	..	..	..	Collection of Czechoslovak Chemical Communications [Eng., Fr., Ger., Russ.]
<i>C. r. Acad. bulg. Sci.</i>	..	..	..	Comptes Rendus de l'Academie Bulgare des Sciences [Eng., Fr., Ger.]
<i>CRC crit. Rev. analyt. Chem.</i>	..	..	..	CRC Critical Reviews of Analytical Chemistry [Eng.]
<i>C. r. hebd. Seanc. Acad. Sci., Paris</i>	..	..	..	Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences [Fr.]
<i>Croat. chem. Acta</i>	..	..	..	Croatica Chymica Acta [Eng., Ger.]
<i>Cslika Farm.</i>	..	..	..	Ceskoslovenska Farmacie [Czech, Slovak]
<i>Curr. Sci.</i>	..	..	..	Current Science [Eng.]
<i>Chemie-Technik</i>	..	..	..	Chemie-Technik [Ger.]
<i>Dokl. Akad. Nauk SSSR</i>	..	..	..	Doklady Akademii Nauk SSSR [Russ.]
<i>Dokl. Akad. Nauk tadzhik. SSR</i>	..	..	..	Doklady Akademii Nauk Tadzhikskoi SSR [Russ.]
<i>Dokl. Akad. Nauk uzbek. SSR</i>	..	..	..	Doklady Akademii Nauk Uzbekskoi SSR [Russ.]
<i>Dt. ApothZtg</i>	..	..	..	Deutsche Apotheker-Zeitung [Ger.]
<i>Dt. LebensmittelRdsch.</i>	..	..	..	Deutsche Lebensmittel-Rundschau [Ger.]
<i>Eczacilik Bult.</i>	..	..	..	Eczacilik Bulteni [Eng., Turk.]
<i>Eisei Kagaku</i> [J. hyg. Chem.]	..	..	..	Eisei Kagaku [Jap.]
<i>Environ. Sci. Technol.</i>	..	..	..	Environmental Science & Technology [Eng.]
<i>Erdöl und Kohle Erdgas Petrochem. Brennst.-Chem.</i>	..	..	..	Erdöel und Kohle, Erdgas, Petrochemie vereinigt mit Brennstoff-Chemie [Ger.]
<i>Experientia</i>	..	..	..	Experientia [Eng., Ger.]
<i>Farmaceuticky Obz.</i>	..	..	..	Farmaceuticky Obzor [Czech, Slovak]
<i>Farmacja pol.</i>	..	..	..	Farmacja Polska [Pol.]
<i>Farmaco, Ed. prat.</i>	..	..	..	Farmaco, Edizione Pratica [Eng., Fr., Ital.]
<i>Faserforsch. TextTech.—Z. PolymForsch.</i>	..	..	..	Faserforschung und Textiltechnik—Zeitschrift fuer Polymerforschung [Ger.]
<i>Fette Seifen AnstrMittel</i>	..	..	..	Fette, Seifen, Anstrichmittel [Ger.]
<i>Finn. Chem. Lett.</i>	..	..	..	Finnish Chemical Letters (formerly Acta Chemica Fennica, B) [Eng.]
<i>Fleischwirtschaft</i>	..	..	..	Fleischwirtschaft [Ger.]
<i>Forens. Sci.</i>	..	..	..	Forensic Science [Eng.]
<i>Geochim. cosmochim. Acta</i>	..	..	..	Geochimica et Cosmochimica Acta [Eng.]
<i>G-I-T Fachz. Lab.</i>	..	..	..	Glas-Instrumenten-Technik. Fachzeitschrift fuer das Laboratorium [Eng., Ger.]
<i>Gordian</i>	..	..	..	Gordian [Ger.]
<i>Helv. chim. Acta</i>	..	..	..	Helvetica Chimica Acta [Fr., Ger.]
<i>Herba pol.</i>	..	..	..	Herba Polonica [Pol.]
<i>Hlth Phys.</i>	..	..	..	Health Physics [Eng.]
<i>Hoppe-Seyler's Z. physiol. Chem.</i>	..	..	..	Hoppe-Seyler's Zeitschrift fuer physiologische Chemie [Ger.]
<i>Huaxue Tongbao</i> [Chem. Bu!!.]	..	..	..	Huaxue Tongbao [Chin.]
<i>Hutn. Listy</i>	..	..	..	Hutnické Listy [Czech]
<i>Indian J. appl. Chem.</i>	..	..	..	Indian Journal of Applied Chemistry [Eng.]
<i>Indian J. Chem.</i>	..	..	..	Indian Journal of Chemistry [Eng.]
<i>Indian J. Pharm.</i>	..	..	..	Indian Journal of Pharmacy [Eng.]
<i>Indian J. Technol.</i>	..	..	..	Indian Journal of Technology [Eng.]
<i>Inds aliment. agric.</i>	..	..	..	Industries Alimentaires et Agricoles [Fr.]
<i>Industrie agr.</i>	..	..	..	Industrie Agrarie [Ital.]
<i>Int. J. appl. Radiat. Isotopes</i>	..	..	..	International Journal of Applied Radiation and Isotopes [Eng., Fr., Ger.]
<i>Int. Sug. J.</i>	..	..	..	International Sugar Journal [Eng.]
<i>Isotopenpraxis</i>	..	..	..	Isotopenpraxis [Ger.]
<i>Israel J. Chem.</i>	..	..	..	Israel Journal of Chemistry [Eng.]
<i>Izv. Akad. Nauk beloruss. SSR, Ser. khim. Nauk</i>	..	..	..	Izvestiya Akademii Nauk Belorusskoi SSR, Seriya Khimicheskikh Nauk [Russ.]
<i>Izv. Akad. Nauk kazakh. SSR, Ser. khim.</i>	..	..	..	Izvestiya Akademii Nauk Kazakhskoi SSR, Seriya Khimicheskaya [Russ.]
<i>Izv. Akad. Nauk latv. SSR, Ser. khim.</i>	..	..	..	Izvestiya Akademii Nauk Latviiskoi SSR, Seriya Khimicheskaya [Russ.]
<i>Izv. Akad. Nauk SSSR, Ser. khim.</i>	..	..	..	Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya [Russ.]
<i>Izv. sib. Otdel. Akad. Nauk SSSR..</i>	..	..	..	Izvestiya Sibirskogo Otdeleniya Akademii Nauk SSSR [Russ.]
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<i>J. agric. Fd Chem.</i>	..	..	..	Journal of Agricultural and Food Chemistry [Eng.]
<i>J. Air Pollut. Control Ass.</i>	..	..	..	Journal of the Air Pollution Control Association [Eng.]

<i>J. Am. Oil Chem. Soc.</i>	..	..	Journal of the American Oil Chemists' Society [Eng.]
<i>J. appl. Chem. Biotechnol.</i>	..	..	Journal of Applied Chemistry and Biotechnology [Eng.]
<i>J. appl. Polym. Sci.</i>	..	..	Journal of Applied Polymer Science [Eng.]
<i>J. Ass. off. analyt. Chem.</i>	..	..	Journal of the Association of Official Analytical Chemists [Eng.]
<i>J. Ass. publ. Analysts</i>	..	..	Journal of the Association of Public Analysts [Eng.]
<i>J. chem. Soc., Dalton Trans.</i>	..	..	Journal of the Chemical Society, Dalton Transactions [Eng.]
<i>J. chem. Soc., Faraday Trans. I</i>	..	..	Journal of the Chemical Society, Faraday Transactions I [Eng.]
<i>J. chem. Soc., Faraday Trans. II</i>	..	..	Journal of the Chemical Society, Faraday Transactions II [Eng.]
<i>J. chem. Soc., Perkin Trans. I</i>	..	..	Journal of the Chemical Society, Perkin Transactions I [Eng.]
<i>J. chem. Soc., Perkin Trans. II</i>	..	..	Journal of the Chemical Society, Perkin Transactions II [Eng.]
<i>J. Chin. chem. Soc., Taipei</i>	..	..	Journal of the Chinese Chemical Society [Taipei] [Eng.]
<i>J. Chromat.</i>	..	..	Journal of Chromatography [Eng., Fr., Ger.]
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<i>J. Coatings Technol.</i>	..	..	Journal of Coatings Technology [Eng.]
<i>J. Dairy Sci.</i>	..	..	Journal of Dairy Science [Eng.]
<i>J. electroanalyt. Chem.</i>	..	..	Journal of Electroanalytical Chemistry and Interfacial Electrochemistry [Eng., Fr., Ger.]
<i>J. electrochem. Soc.</i>	..	..	Journal of the Electrochemical Society [New York] [Eng.]
<i>J. environ. Sci. Hlth</i>	..	..	Journal of Environmental Science and Health, Parts A and B [Eng.]
<i>J. Fd Sci.</i>	..	..	Journal of Food Science [Eng.]
<i>J. forens. Sci. Soc.</i>	..	..	Journal of the Forensic Science Society [Eng.]
<i>J. Indian chem. Soc.</i>	..	..	Journal of the Indian Chemical Society [Eng.]
<i>J. inorg. nucl. Chem.</i>	..	..	Journal of Inorganic & Nuclear Chemistry [Eng.]
<i>J. Inst. Brew.</i>	..	..	Journal of the Institute of Brewing [Eng.]
<i>J. Lipid Res.</i>	..	..	Journal of Lipid Research [Eng.]
<i>J. Pharm. Belg.</i>	..	..	Journal de Pharmacie de Belgique [Fr.]
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<i>J. Res. natn. Bur. Stand.</i>	..	..	Journal of Research of the National Bureau of Standards [Eng.]
<i>J. Sci. Fd Agric.</i>	..	..	Journal of the Science of Food and Agriculture [Eng.]
<i>J. Steroid Biochem.</i>	..	..	Journal of Steroid Biochemistry [Eng.]
<i>J. Wat. Pollut. Control Fed.</i>	..	..	Journal of the Water Pollution Control Federation [Eng.]
<i>Kautschuk Gummi Kunststoffe Klin. Wschr.</i>	..	..	Kautschuk und Gummi, Kunststoffe [Ger.]
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<i>Mikrochim. Acta</i>	..	..	Microchemical Journal [Eng.]
<i>Mitt. Geb. Lebensmittelunters. u. Hyg.</i>	..	..	Mikrochimica Acta [Eng., Fr., Ger.]
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<i>Nature, Lond.</i>	..	..	Nahrung [Eng., Ger., Russ.]
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<i>Nucl. Instrum. Meth.</i>	..	..	Naturwissenschaften [Eng., Ger.]
<i>Periodica polytech. chem. Engng</i>	..	..	Nuclear Instruments and Methods [Eng.]
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<i>Plaste Kautsch.</i>	..	..	Pharmaceutisch Weekblad [Dutch, Eng., Ger.]
<i>Pol. J. Pharmac. Pharm.</i>	..	..	Plaste und Kautschuk [Ger.]
<i>Powder Technol.</i>	..	..	Polish Journal of Pharmacology and Pharmacy [Eng.]
<i>Proc. analyt. Div. chem. Soc.</i>	..	..	Powder Technology [Eng.]
<i>Prof. Pap. U.S. geol. Surv.</i>	..	..	Proceedings of the Analytical Division of the Chemical Society [Eng.]
<i>Prostaglandins</i>	..	..	Professional Papers. United States Geological Survey [Eng.]
<i>Pure appl. Chem.</i>	..	..	Prostaglandins [Eng.]
<i>Pyrethrum Post</i>	..	..	Pure and Applied Chemistry [Eng., Fr., Ger.]
<i>Quim. analit.</i>	..	..	Pyrethrum Post [Eng., Fr.]
<i>Radiochem. radioanalyt. Lett.</i>	..	..	Quimica Analitica (formerly Informacion de Quimica Analitica, Pura y Aplicada a la Industria) [Span.]
			Radiochemical and Radioanalytical Letters [Eng., Fr., Ger.]

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Rep. atom. Energy Commn U.S.	..	..	..	Report. Atomic Energy Commission, United States [Eng.]
Rep. Invest. U.S. Bur. Mines	..	..	..	Report of Investigations. United States Bureau of Mines [Eng.]
Rep. natn. Inst. Metall.	..	..	..	Report. National Institute for Metallurgy [Eng.]
Rep. U.K. atom. Energy Auth.	..	..	..	Report. United Kingdom Atomic Energy Authority [Eng.]
Rev. scient. Instrum.	..	..	..	Review of Scientific Instruments [Eng.]
Revta Asoc. bioquim. argent.	..	..	..	Revista de la Asociacion Bioquimica Argentina [Span.]
Revta Chim.	..	..	..	Revista de Chimie [Rom.]
Revue roum. Chim.	..	..	..	Revue Roumaine de Chimie [Eng., Fr., Ger., Russ.]
Riv. ital. Sostanze grasse	..	..	..	Rivista Italiana delle Sostanze Grasse [Ital.]
Roczn. Chem.	..	..	..	Roczniki Chemii [Eng., Fr., Ger., Pol.]
Roczn. panst. Zakladu Higieny	..	..	..	Roczniki Panstwowego Zakladu Higieny [Pol.]
Scand. J. clin. Lab. Invest.	..	..	..	Scandinavian Journal of Clinical & Laboratory Investigation [Eng.]
Science, N.Y.	..	..	..	Science [Eng.]
Scientia pharm.	..	..	..	Scientia Pharmaceutica [Ger.]
Seprn Purif. Meth.	..	..	..	Separation and Purification Methods [Eng.]
Seprn Sci.	..	..	..	Separation Science [Eng.]
Soviet Radiochem.	..	..	..	Soviet Radiochemistry [English translation of Radiokhimiya]
Spectrochim. Acta, A	..	..	..	Spectrochimica Acta, Part A [Eng., Fr., Ger.]
Spectrosc. Lett.	..	..	..	Spectroscopy Letters [Eng.]
Staerke	..	..	..	Staerke [Eng., Ger.]
Staub, Reinhalt. Luft	..	..	..	Staub, Reinhalzung der Luft [Ger.]
Steroids	..	..	..	Steroids [Eng.]
Studia Univ. Babes-Bolyai, Ser. Chem.	..	..	..	Studia Universitatis Babes-Bolyai, Series Chemia [Eng., Rom.]
Talanta	..	..	..	Talanta [Eng., Fr., Ger.]
TAPPI	..	..	..	TAPPI [Journal of the Technical Association of the Pulp and Paper Industry] [Eng.]
Trav. Soc. Pharm. Montpellier	..	..	..	Travaux de la Societe de Pharmacie de Montpellier [Fr.]
Trib. CEBEDEAU	..	..	..	Tribune de CEBEDEAU [Centre Belge d'Etude et de Documentation des Eaux] [Fr.]
Trudy Khim. khim. Tekhnol. [Gor'kii]	..	..	..	Trudy po Khimii i Khimicheskoi Tekhnologii [Russ.]
Trudy mosk. khim.-tehnol. Inst.	..	..	..	Trudy Moskovskogo Khimiko-Tekhnologicheskogo Instituta imeni D. I. Mendeleeva [Russ.]
Uchen. Zap. perm. gos. Univ.	..	..	..	Uchenye Zapiski Permskogo Gosudarstvennogo Universiteta imeni M. Gor'kogo [Russ.]
Uhr. khim. Zh.	..	..	..	Ukrains'ki Khimicheskiy Zhurnal [Russ.]
Uzbek. khim. Zh.	..	..	..	Uzbekskiy Khimicheskiy Zhurnal [Russ.]
Vest. leningr. gos. Univ., Fiz., Khim.	..	..	..	Vestnik Leningradskogo Gosudarstvennogo Universiteta, Fizika, Khimiya [Russ.]
Vest. mosk. gos. Univ., Ser. Khim.	..	..	..	Vestnik Moskovskogo Gosudarstvennogo Universiteta, Seriya Khimiya [Russ.]
Wat. Res.	..	..	..	Water Research [Eng.]
Wat. Sewage Wks	..	..	..	Water & Sewage Works [Eng.]
X-Ray Spectrom.	..	..	..	X-Ray Spectrometry [Eng., Fr., Ger.]
Yakugaku Zasshi [J. pharm. Soc. Japan]	..	..	..	Yakugaku Zasshi [Jap.]
Z. analyt. Chem.	..	..	..	Zeitschrift fuer analytische Chemie [Eng., Ger.]
Z. anorg. allg. Chem.	..	..	..	Zeitschrift fuer anorganische und allgemeine Chemie [Ger.]
Zav. Lab.	..	..	..	Zavodskaya Laboratoriya [Russ.]
Z. Chemie, Lpz.	..	..	..	Zeitschrift fuer Chemie [Ger.]
Zentbl. Pharm., Pharmakother. u. Lab.-diagnostik	..	..	..	Zentralblatt fuer Pharmazie, Pharmakotherapie und Laboratoriums-diagnostik [Ger.]
Zh. analit. Khim.	..	..	..	Zhurnal Analiticheskoi Khimii [Russ.]
Zh. prikl. Khim., Leningr.	..	..	..	Zhurnal Prikladnoi Khimii [Russ.]
Zh. prikl. Spektrosk.	..	..	..	Zhurnal Prikladnoi Spektroskopii [Russ.]
Z. Lebensmittelunters. u. -Forsch.	..	..	..	Zeitschrift fuer Lebensmittel-Untersuchung und -Forschung [Eng., Ger.]

## ACKNOWLEDGEMENTS

The organisations publishing the following journals, or their own abstracts, are thanked for allowing reproduction of some abstracts.

Abstract Bulletin of the Institute of Paper Chemistry  
 Chemical Abstracts  
 ERDA Energy Research Abstracts  
 Euro Abstracts  
 Flour Milling and Baking Research Association Abstracts  
 Food RA Abstracts  
 Fuel Abstracts and Current Titles  
 INIS Atomindex  
 International Sugar Journal  
 Journal of the Institute of Brewing  
 Lead Abstracts  
 Mineralogical Abstracts  
 Nuclear Science Abstracts  
 Nutrition Abstracts and Reviews  
 RAPRA Abstracts  
 World Surface Coatings Abstracts  
 World Textile Abstracts  
 Zinc Abstracts

## ABBREVIATIONS AND SYMBOLS

*Certain abbreviations in everyday use are not included in the following list. When any doubt might arise from the use of an abbreviation or symbol the word is printed in full.*

adenosine 5'-monophosphate . . . . .	AMP	high-performance liquid chromatography . . . . .	h.p.l.c.
adenosine 5'-pyrophosphate . . . . .	ADP	infra-red . . . . .	i.r.
adenosine 5'-triphosphate . . . . .	ATP	insoluble . . . . .	insol.
alternating current . . . . .	a.c.	ionic strength . . . . .	I
approximate, -ly . . . . .	approx.	mass spectrometr-y, -ic . . . . .	m.s.
aqueous . . . . .	aq.	maxim-um, -a . . . . .	max.
atomic-absorption spectrophotometr-y, -ic . . . . .	a.a.s.	molar extinction coefficient . . . . .	$\epsilon$
atomic-emission spectrometr-y, -ic . . . . .	a.e.s.	molecular weight . . . . .	mol. wt.
atomic-fluorescence spectrometr-y, -ic . . . . .	a.f.s.	neutron-activation analysis . . . . .	n.a.a.
atomic number . . . . .	Z	nicotinamide-adenine dinucleotide (oxidised form) . . . . .	NAD <sup>+</sup>
attenuated total reflectance . . . . .	a.t.r.	nicotinamide-adenine dinucleotide (reduced form) . . . . .	NADH
biochemical oxygen demand . . . . .	BOD	normal calomel electrode . . . . .	n.c.e.
boiling-point . . . . .	b.p.	normal hydrogen electrode . . . . .	n.h.e.
chemical oxygen demand . . . . .	COD	nuclear magnetic resonance . . . . .	n.m.r.
coefficient . . . . .	coeff.	optical rotation . . . . .	$\alpha$
concentrated . . . . .	conc.	optical rotatory dispersion . . . . .	o.r.d.
concentration . . . . .	concn.	partial pressure (as in, e.g., $p_{CO_2}$ ) . . . . .	$p$
crystalline . . . . .	{ cryst.	poly(tetrafluoroethylene) . . . . .	PTFE
crystallised . . . . .		potential difference . . . . .	p.d.
current density . . . . .	c.d.	precipitate (as a noun) . . . . .	ppt.
density, relative . . . . .	d	precipitated . . . . .	pptd.
deoxyribonucleic acid . . . . .	DNA	precipitation . . . . .	pptn.
diameter, inside . . . . .	i.d.	preparation . . . . .	prep.
diameter, outside . . . . .	o.d.	recrystallised . . . . .	recryst.
differential thermal analysis . . . . .	d.t.a.	refractive index . . . . .	$n_A^t$
dilute (as adjective) . . . . .	dil.	relative band speed . . . . .	R <sub>p</sub>
5-dimethylaminonaphthalene-1-sulphonyl . . . . .	dansyl	relative humidity . . . . .	r.h.
direct current . . . . .	d.c.	ribonucleic acid . . . . .	RNA
dissociation constant . . . . .	K	saturated (as adjective) . . . . .	satd.
electron spin (or paramagnetic) resonance . . . . .	e.s.r.	saturated calomel electrode . . . . .	s.c.e.
ethylenediaminetetra-acetate . . . . .	edta	soluble . . . . .	sol.
gas chromatograph-y, -ic . . . . .	g.c.	solution . . . . .	soln.
gas - liquid chromatograph-y, -ic . . . . .	g.l.c.	specific rotation . . . . .	$[\alpha]_D^t$
gas - solid chromatograph-y, -ic . . . . .	g.s.c.	standard temp. and pressure . . . . .	s.t.p.
half-wave potential . . . . .	E <sub>1/2</sub>	thin-layer chromatograph-y, -ic . . . . .	t.l.c.
height equivalent to a theoretical plate . . . . .	h.e.t.p.	ultra-violet . . . . .	u.v.
		volume . . . . .	vol.
		wavelength . . . . .	$\lambda$
		weight . . . . .	wt.

## UNITS OF MEASUREMENT

*As well as those listed below, other symbols given in the 'Système International d'Unités' (SI) may be used where appropriate. The symbols 'mμ' (for nm) and 'γ' (for μg) are not used.*

ampere	.	A	molar (concentration)	M
ångström	.	Å	neutrons per square centimetre	n cm <sup>-2</sup> s <sup>-1</sup>
atmosphere	.	atm	per second	N
atomic mass unit	.	a.m.u.	newton	N
counts per minute	.	c.p.m.	normal (concentration)	N
curie	.	Ci	ohm	Ω
disintegrations per minute	.	d.p.m.	parts per million	p.p.m.
electron-volt	.	eV	pascal	Pa
equivalent	.	equiv.	per cent. (vol. in vol.)	% (v/v)
farad	.	F	per cent. (wt. in vol.)	% (w/v)
gauss	.	G	per cent. (wt. in wt.)	% (w/w)
gram	.	g	pounds per square inch	p.s.i.
gram-molecule	.	mol	revolutions per minute	r.p.m.
hertz	.	Hz	roentgen	R
hour	.	h	second (time)	s
international unit	.	i.u.	siemens	S
joule	.	J	tesla	T
kelvin*	.	K	tonne (10 <sup>6</sup> g)	t
kilogram	.	kg	unit of pressure (mm Hg)	Torr
litre	.	l	volt	V
metre	.	m	watt	W
minute (time)	.	min	weber	Wb

\* Temperatures given in degrees are on the Celsius scale unless otherwise indicated.

*The following prefixes may be used in conjunction with the symbols—*

Fraction	Prefix	Symbol	Multiple	Prefix	Symbol
10 <sup>-1</sup>	deci	d	10	deka	da
10 <sup>-2</sup>	centi	c	10 <sup>2</sup>	hecto	h
10 <sup>-3</sup>	milli	m	10 <sup>3</sup>	kilo	k
10 <sup>-6</sup>	micro	μ	10 <sup>6</sup>	mega	M
10 <sup>-9</sup>	nano	n	10 <sup>9</sup>	giga	G
10 <sup>-12</sup>	pico	p	10 <sup>12</sup>	tera	T
10 <sup>-15</sup>	femto	f			
10 <sup>-18</sup>	atto	a			

Abbreviations of journal titles used in the abstracts are, in general, those of the 'World List of Scientific Periodicals' (4th Edn, 1964, Butterworths, London), but all diacritical marks are omitted and the German ä, ö and ü and the Scandinavian ø (or ö) are transliterated as ae, oe, ue and oe, respectively. The language in which an original paper is written is English unless otherwise specified.

The chemical nomenclature used in the abstracts may differ from that in the original articles and is that recommended by The International Union of Pure and Applied Chemistry ('Nomenclature of Organic Chemistry', Sections A and B, 3rd Edn, and Section C, 2nd Edn, Butterworths, London, 1971; 'Nomenclature of Inorganic Chemistry', Butterworths, London, 1971).

When known, the Colour Index (C.I.) designations of dyes are generally included. The names given to enzymes are those recommended by the International Union of Pure and Applied Chemistry and the International Union of Biochemistry ('Enzyme Nomenclature', Elsevier Scientific Publishing Co., Amsterdam, 1973). When possible, drugs are specified by their official B.P. or B.P.C. names, or by the Approved Names recommended by the British Pharmacopoeia Commission (8 Bulstrode Street, London, W1M 5FT). The principal Pharmacopoeias are denoted by, e.g., B.F., U.S.P. or Eur.P., together with the identifying roman numeral or year. Pesticides are named in accordance with the British Standard 1831:1969, 'Recommended Common Names for Pesticides' (British Standards Institution, 2 Park Street, London, W1A 2BS).

## System of Numbering Abstracts

The abstract designation consists of three parts (left to right):

(1) *Issue Number.* A number 1 to 6 corresponding to the monthly issue number in a given volume. (There are two volumes of six separate monthly issues each year.)

(2) *Section Letter.* Each subject section is indicated by a letter of the alphabet A to J (the letter I is avoided to prevent possible confusion).

(3) *Abstract Number.* An individual number of the abstract within its section. The numbers start with 1 in each section of each issue and run consecutively throughout the section.

## ERRATA

Some errata subsequently published in the journals abstracted are included in the following list. When the initials of given names in the Author Index and in the abstracts do not agree, the Index should be assumed to be correct.

### VOL. 13, 1966

#### *Abstract*

No. Line

405 15 for 3-phenyltriazen read 3-(4-phenylazophenyl)triazen.

Appropriate modifications should be made to the Subject Index for Vol. 13.

### VOL. 20, 1971

Index, p. 42, column 1, line 49, for 2761 read 2671

### VOL. 22, 1972

#### *Abstract*

No. Line

3344 3 for Foo, Song Hom read Hom, Foo Song

4411 1,2,3 these lines should read 4411. Analysis for fat-soluble vitamins. XII. Chemical analysis for

vitamin D in concentrates and its problems. Mulder, F. J.; Vries, E. J. de; and

Appropriate modifications should be made to the Author Index for Vol. 22.

### VOL. 28, 1975

#### *Abstract*

No. Line

1C50 3 for 4-phenanthrylglyoxal read 3-phenanthrylglyoxal

Appropriate modifications should be made to the Subject Index for Vol. 28.

### VOL. 29, 1975

#### *Abstract*

No. Line

3B167 25 for 1974 read 1975

### VOL. 30, 1976

#### *Abstract*

No. Line

3H9 20 for resonance read non-resonance

### VOL. 31, 1976

#### *Abstract*

No. Line

1F27 14 for C.I. Food Yellow 5 read C.I. Food Yellow 4

4C37 3,4 for Rijka, J. A. read Rijks, J. A.

Appropriate modifications should be made to the Author and Subject Indexes for Vol. 31.

### VOL. 32, 1977

#### *Abstract*

No. Line

1B54 3 for Pintillii, B. F. read Pintilii, B. F.

1B181 11 this line should read (to convert the  $^{103}\text{Ru}$  species into  $^{103}\text{RuO}_4$ ). The

1C58 22 for bis(hydroxymethyl)urea read bis(hydroxymethyl)urea

1D91 5 for 56 read 36

1H18 3 for Krisel, Rhoda S. read Kriesel, Rhoda S.

1J9 2 for Gruska, Eli. read Grushka, Eli.

1J65 5 for Porton read Puriton

2B70 8 for 1975 read 1976

2B128 19 for 0.027-KBrO<sub>3</sub>M read 0.027M-KBrO<sub>3</sub>

2C74 3,4 for Glockner, G. read Gloeckner, G.

2D65 4 for Neuhof, V. read Neuhoff, V.

3B84 4 for Firson, V. I. read Firsov, V. I.

3E15 2 for XII. read XIII.

4D29 3 for (amino)methylbenzene read amino(methylbenzyl)

5B61 4 for Hoehn, T. read Hoehn, R.

5D54 7 for 291-296 read 291-295

5D106 10,11 for lysine, vasopressin read 8-lysine-vasopressin

6B82 3 for Kaza, Somasekhara Rao read Rao, K. S.

6E4 2 for determining read quantitative analysis of pharmaceutical preparations. XVI.

Determination of

Decennial Subject Index, p. S 495, and Quinquennial Subject Index, p. S 430, entry for cadion, replace systematic name by 1-(4-nitrophenyl)3-(4-phenylazophenyl)triazen

## SUBJECT INDEX

Organic compounds are indexed under the parent compounds, except under the headings **Indicators** and **Reagents**, organic and the lists of reagents under specific elements. Esters and salts of organic acids are in general indexed under the names of their acid constituents. References to **Cosmetics**, **Dyes**, **Enzymes**, miscellaneous **Optical devices** and minor items of **Laboratory apparatus** will be found under these headings. Books and conference papers (titles only) are indicated by *B* and *C* respectively, following the abstract numbers.

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  - Amido black 10B. *Acid Black* 1
  - Azure A. *No. 52005*
  - Brilliant blue FCF. *Acid Blue* 9
  - Brilliant cresyl blue. *No. 51010*
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  - Chromal blue G. *Mordant Blue* 55
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  - cochineal. *Acid Red* 18
  - Coomassie blue GL. *Acid Blue* 102
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